

# **An Overview of CBO's Role in Assessing Climate Change**

March 30, 2023

Presentation to the Macroeconomic Group  
The Australian Treasury

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## **CBO's Role**

CBO was established to give the Congress a stronger role in budget matters.

The agency provides analysis of budgetary and economic issues that is objective and impartial. It is strictly nonpartisan and does not make policy recommendations.

CBO follows processes that are specified in statute or that it has developed in concert with the budget committees and Congressional leadership. CBO's chief responsibility under the Budget Act is to help the budget committees with the matters under their jurisdiction.

# Budgetary Effects of Climate Change and Efforts to Address It



Climate change results in physical effects that reduce economic output.

Potential consequences exist for revenues, mandatory spending, and discretionary spending.

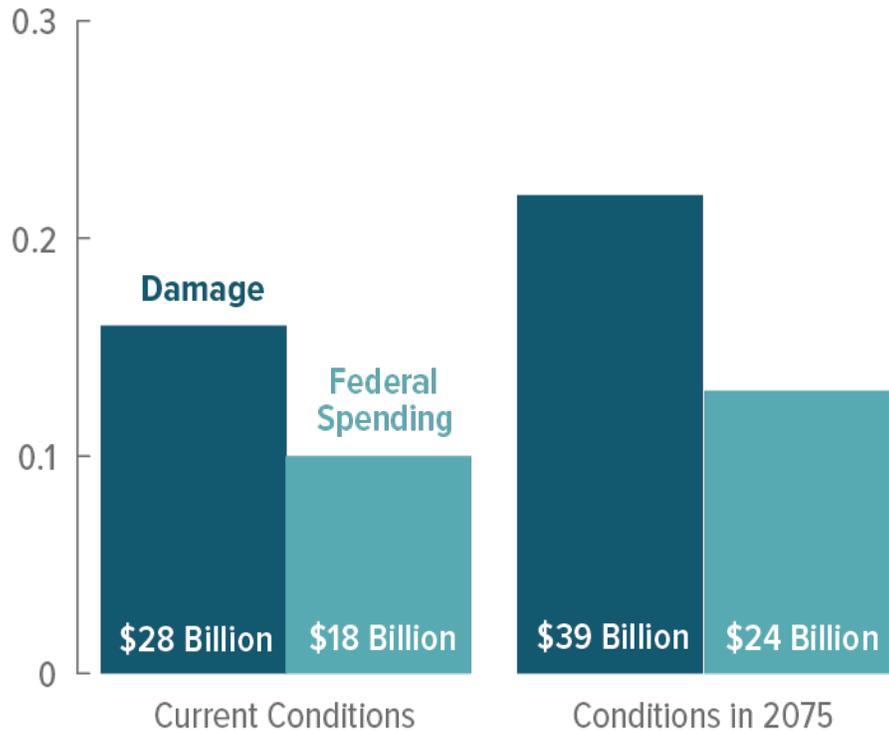
Adaptation and mitigation could reduce physical and budgetary effects.

# **Effects of Climate Change**

# Estimates of Hurricane Damage

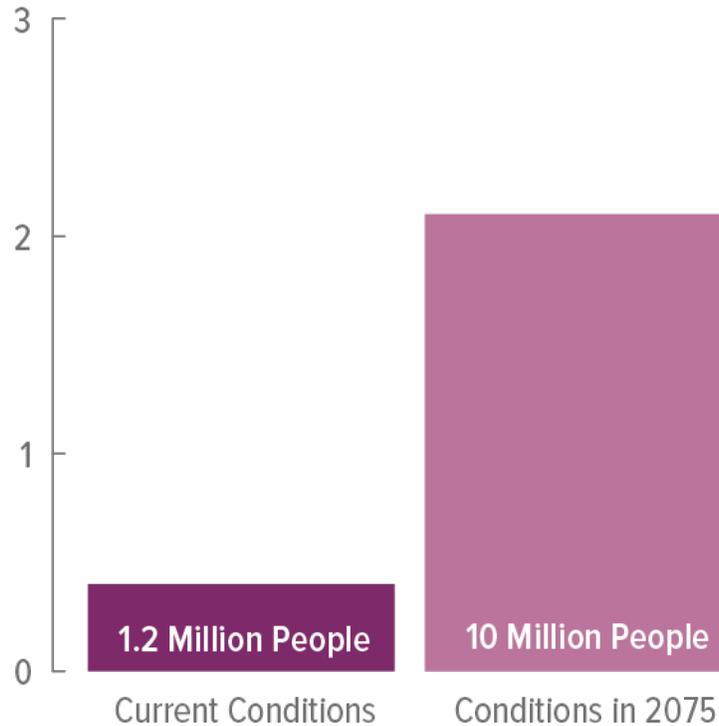
Expected Hurricane Damage and Related Federal Spending

Percentage of Gross Domestic Product  
(Also shown in dollars based on today's economy)



Percentage of the U.S. Population Living in Counties With Substantial Hurricane Damage<sup>a</sup>

Percentage of U.S. Population



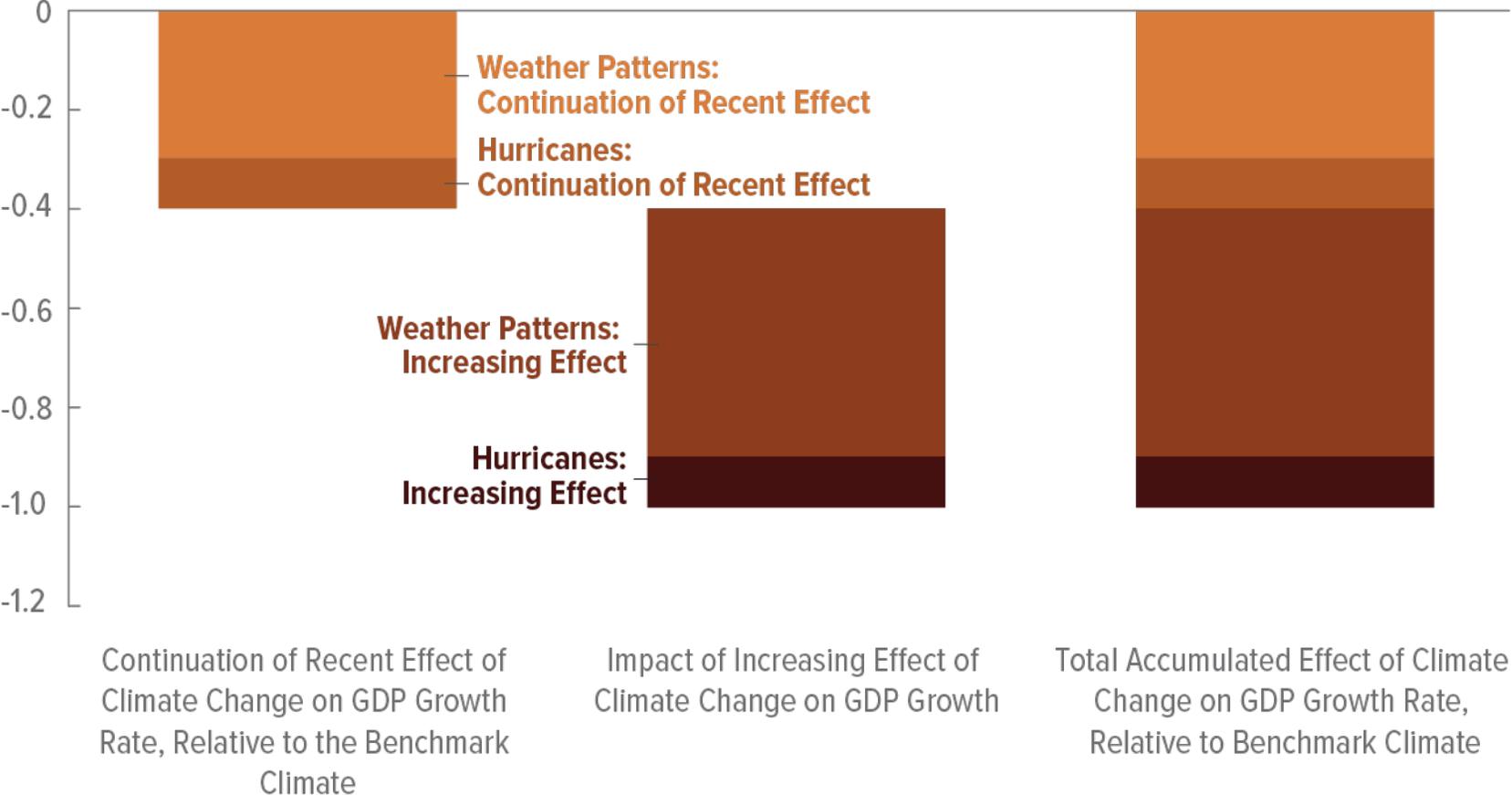
The cost of hurricane damage is expected to increase more than the economy will grow.

Expected annual damage in 2016 was 0.16 percent of gross domestic product (GDP).

Expected annual damage in 2075 is 0.22 percent of GDP.

# How Climate Change Is Expected to Change the Level of Real Gross Domestic Product in 2050

Percentage of Real GDP



Climate change will reduce the growth rate of real (inflation-adjusted) GDP from 2020 to 2050 by an average of 0.03 percentage points.

That difference in annual growth accumulates to a 1.0 percent reduction in the projected level of real GDP in 2050.

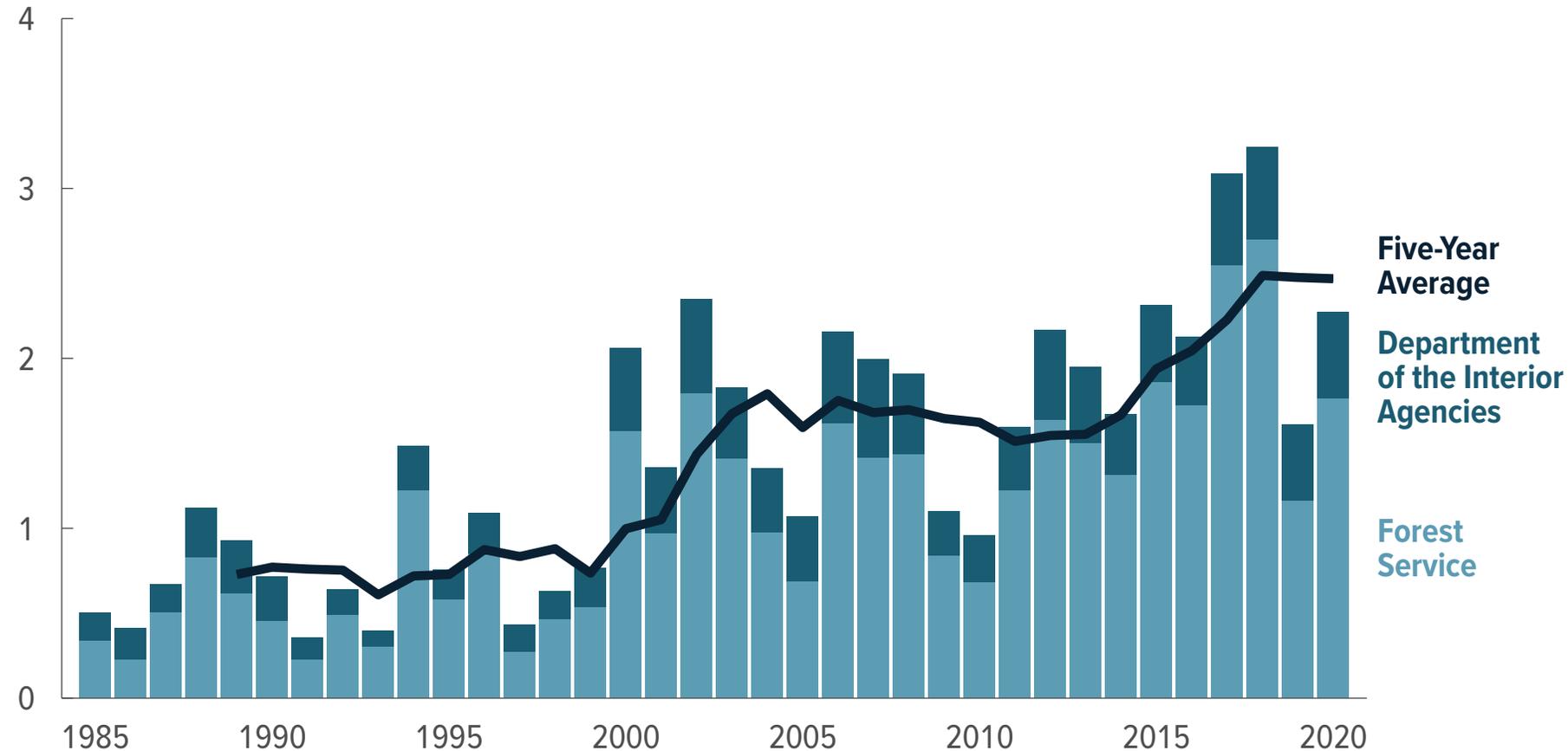
Climate change will have effects on people’s well-being that are not measured in GDP.

See Congressional Budget Office, *The 2021 Long-Term Budget Outlook* (March 2021), [www.cbo.gov/publication/56977](http://www.cbo.gov/publication/56977); and Evan Herrnstadt and Terry Dinan, *CBO’s Projection of the Effect of Climate Change on U.S. Economic Output*, Working Paper 2020-06 (Congressional Budget Office, September 2020), [www.cbo.gov/publication/56505](http://www.cbo.gov/publication/56505).

# How Wildfires Affect the Federal Budget

## Spending on Wildfire Suppression by the U.S. Forest Service and Department of the Interior

Billions of 2020 Dollars



Wildfires affect the federal budget through spending on fire suppression, forest management, disaster assistance, and other activities.

The 5-year moving average for federal spending on wildfire suppression has tripled in recent years.

Climate change has created hotter and drier conditions that are conducive to longer and more severe wildfire seasons.

# **Effects of Policies That Would Address Climate Change**

# How a Tax on Greenhouse Gas Emissions Would Affect the Federal Budget

Billions of Dollars	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total	
											2023–2027	2023–2032
Decrease (-) in the Deficit												
Apply a \$25 tax per metric ton of emissions and increase tax annually by 5 percent, adjusted for inflation	-55.2	-86.2	-83.5	-82.4	-81.8	-81.3	-87.3	-95.4	-102.9	-109.5	-389.0	-865.4
Apply a \$25 tax per metric ton of emissions and increase tax annually by 2 percent, adjusted for inflation	-55.2	-84.7	-80.4	-77.3	-74.9	-72.2	-75.0	-79.6	-83.4	-86.2	-372.5	-768.9
Apply a \$25 tax per metric ton of emissions (excluding gasoline) and increase tax annually by 2 percent, adjusted for inflation	-43.3	-65.9	-61.0	-57.4	-54.6	-51.6	-54.0	-58.1	-61.5	-63.7	-282.1	-570.9

Data sources: Staff of the Joint Committee on Taxation; Congressional Budget Office.

This option would take effect in January 2023.

An offset to reflect reduced income and payroll taxes has been applied to the estimates in this table.

# Projected Carbon Dioxide Emissions From the Electric Power Sector Before and After the 2022 Reconciliation Act

Billions of Metric Tons

